

AMENDMENTS TO THE SPECIFICATION:

Page 5, replace the paragraph beginning on line 16 with the following amended paragraph:

--It is a further feature of this invention to keep the rotor as compact as possible without sacrificing internal volume for the deployment of the cavitation implosion zones, when required. For instance, a hemi-spherical rotor, being naturally relatively short in axial length but greater in its radial dimension, the potential depth ~~available~~ available for the deployment of such forming cavitation implosion zones is greater than would be normal be the case with a rotor shaped like a flat disc. Furthermore, the flat surface of the hemi-spherical rotor can also, when desired, be used to incorporate a further and quite separate deployment of cavitation implosion zones just like the rotor shaped like a flat disc would have.--

Page 5, replace the paragraph beginning on line 25 and bridging pages 5 and 6 with the following amended paragraph:

--It is also a preferred feature of the invention to minimize the risk of bearing and seal failure. In this respect, the examples show that the positioning of the fluid inlet axially adjacent the inner end of the drive shaft has the principle advantage that the support bearing receives a copious supply of cooling fluid, while also removing the requirement for any type of seal member to be located between the housing and shaft at this end of the device. The transmission of power to the device without

any direct mechanical connection would remove the requirements for a seal member at the opposite end of the device. However, when such a seal member is to be deployed, the fluid passages can be ~~adapted~~ adapted to provide the seal with sufficient fluid for cooling/lubrication purposes.--

Page 6, replace the paragraph beginning on line 25 and bridging pages 6 and 7 with the following amended paragraph:

--While most embodiments here illustrated describe rotors having surface irregularities in the form of openings, the invention equally applies to rotors having a generally smooth surface appearance. Rotors without openings are less costly to manufacture and can be used for certain applications, operating somewhat in the fashion of Perkins, where the rise in temperature of the fluid occurs due to the shearing effect on the fluid as it passes the clearance between ~~rotor~~ rotor and housing. Accordingly, it is a further object of the invention for the device to provide more flexibility for each particular application and dynamic operational condition, regardless whether the heat output is in the form of a liquid or vapour at various pressures.-

Page 10, replace the paragraph beginning on line 18 and bridging pages 10 and 11 with the following amended paragraph:

--Referring to Figs. 3 and 4, the device here differs from the first embodiment in two main respects. Firstly, the housing structure surrounding the rotor 50 is comprised of two housing elements instead of three: a rear housing member 51 and a

front housing member 52. Housing elements 51, 52 connect together on register 53 with seal 54 disposed at the interface, and a number of bolts 56 fasten housing elements 51, 52 together. A drive shaft 57 is supported in the housing by a pair of bearings, 60, 61, drive shaft 57 having a longitudinal axis of rotation denoted as 58. A seal such as a rotary lip seal 63 is seated in housing element 52 and where a pocket 79 separates seal 63 from rotor 50. A fluid port connection 65 fluid inlet 65 is disposed in ~~in housing~~ housing element 51 which preferably for many application will serve as the fluid inlet, whereas housing element 51 includes passage 66 which preferably for many application will serve as the fluid exit. As is the case the first embodiment, fluid exit passage 66 lies at a greater radial distance from rotation axis 58 than the fluid inlet 65. However, it should be pointed out that for certain applications, especially when mains pressure is available, the device can be operated such that passage 66 becomes the fluid inlet and passage 65 the outlet.--